

What can video games teach us about teaching reading?

James Gee's work on learning principles and video games is extended to learning to read.

Last year, my husband and I traveled to an educational conference leaving my 10-year-old daughter, Carly, with her aunt and two cousins. When we returned, I found my daughter forever changed. During our absence she had been introduced to the world of video games and given her first hand-held video game playing device. The system accommodates an endless number of game cartridges. At first I was quite upset. My daughter seemed obsessed with the games. She wanted to play at home, in the car, and with her friends. She saved her own money to buy new games and new game systems. Over time my concerns have softened. Although I continue to monitor the time she spends with these games, I am beginning to see some possibilities related to video games.

I am fascinated by the ways these games engage children, hold their attention, and teach them to maneuver complex scenarios while solving challenging problems. Gee (2003) has explained that video games “build into their designs and encourage good principles of learning, principles that are better than those in many of our skill-and-drill, back-to-basics, test-them-until-they-drop schools” (p. 205). Gee has identified 36 learning principles that are incorporated into excellent video games. I maintain that the principles Gee has identified by watching children interact with video games are precisely the principles that define excellent reading instruction. I also suggest that by exploring these principles we can gain insight on our own teaching.

Gee's interest in video games was inspired by his son, Sam. When Sam was little, Gee found himself trying to help his son maneuver various games, but it was often Sam who helped his dad (Gee, 2004). Gee found the games fascinating and soon attempted to play a few adult games. He was “amazed at how long, challenging and complex” (p. 2) the games were.

As Gee (2004) explained, the makers of video games must ensure that their games are financially successful:

This means that game companies need to sell something that is long, hard, and requires an extended commitment. They can't dumb the games down, because most players don't want short or easy games. If people can't learn to play the company's games, the company goes broke. So they have no choice but to make the games very good at getting themselves learned. (pp. 2-3)

Gee's insights on video games and learning reflect sociocultural learning theories. These theories recognize that learning and—more specifically—literacy learning, does not occur separately from other aspects of our lives. The following tenets characterize sociocultural understandings about learning and literacy.

- Learning always occurs within a particular context that involves particular people and particular expectations; learning can occur in both formal and informal contexts (Hull & Schultz, 2002; Street, 1995).
- Learning is a social process; it occurs through interaction with others rather than as an individual accomplishment occurring within an individual's mind (Barton & Hamilton, 1998; Street).

- Learning is grounded in historical precedents that have preceded us and our ideas; we learn with other people's words that have historically served other people's interests (Bakhtin, 1994).
- Literacy is not a singular construct; literacy learning involves learning multiple types of literacy practices that are differentially useful in various contexts (Barton, Hamilton, & Ivanič, 2000).
- Literacy learning and literacy practices are not separate from people's identities; literacy is among the tools that we use to "play out" particular identities (Ferdman, 1990; Gee, 2001).
- Literacy learning and literacy practices are ideological; becoming literate involves particular ways of understanding the world and the role of written text within the world (Street, 1995).
- Literacy learning and literacy practices are situated within contexts that involve power; some literacies are valued and others are devalued, and some literacy practices provide access to opportunities although other literacy practices are marginalized.

So what might this mean to reading teachers, and what can we learn from video games? In this article I will draw upon Gee's writing about video games, the work of reading researchers, and Carly's words to explore some of the principles about learning identified by Gee. Although I suspect that all 36 of Gee's principles are relevant to teaching reading, in this article I will not attempt to address them all. Instead, I have selected a sampling of principles that cover a range of issues related to teaching reading. The first two principles I have chosen to explore relate to insights on learners and the conditions that foster learning. The next three principles address general understandings about how learning occurs. The final three principles I have chosen have direct implications for teaching.

Insights on learners and conditions that foster learning

These first learning principles focus on the learner and the conditions that foster learning. These principles reflect sociocultural insights on learning that emphasize the importance of the context within which learning occurs, the social nature of learning, and the ways learning intersects with the identities we assume.

"Psychosocial moratorium" principle

Learners can take risks in a space where real-world consequences are lowered. (Gee, 2003, p. 207)

A "psychosocial moratorium" refers to learning experiences in which learners can take risks without the threat of real-world consequences. In classrooms, we refer to this as creating a "risk-free" environment.

In video games, players can easily evade death. When players are about to engage in difficult and potentially disastrous situations, they merely remember to save their game. Then, if they are annihilated, they can turn the game off and back on; their character returns to the game alive and breathing—reincarnated—with another opportunity to defeat their foe or complete their task. Children in classrooms often do not experience this sense of security.

"Round Robin" reading is the quintessential example. Many of us remember asking to use the bathroom as our turn to read approached. Leaving the room allowed us to maintain our dignity and avoid the risk of public display of failure. Memories of reading aloud often haunt adults who struggled with reading as children. This is one reason that in guided reading lessons all of the children read "whole" texts while the teacher circulates listening to individual students read quietly while other students are engaged with their own reading.

Risk taking is also related to our students' personalities and the ways they approach literacy tasks. From his first days in my first-grade classroom, Tyreek (a pseudonym) wrote fluently and readily recorded letter sounds in sequence. He seldom paused when writing. Tyreek was a risk taker, and this was part of what made Tyreek an "easy to teach" student.

However, not all children share Tyreek's fearless approach to print. Many children need encouragement and reassurance before they are willing to put their pens to papers, and many adults are like this as well. As teachers, we can create situations that help children to feel safe and willing to take risks. In her book on struggling readers, Lyons (2003) suggested that we "provide opportunities for children to take risks without fear of failure" (p. 92). Lyons explained that we must reassure children that we will help them when they need it. It is important that we encourage children and seek ways to support them as problem solvers.

Identity principle

Learning involves taking on and playing with identities in such a way that the learner has real choices (in developing the virtual identity) and ample opportunity to mediate on the relationship between new identities and old ones. There is a tripartite play of identities as learners relate, and reflect on, their multiple real-world identities, a virtual identity, and a projective identity. (Gee, 2003, p. 208)

As Gee (2003) explained, video games "recruit identities and encourage identity work" (p. 51). Gee provided the example of a game called *Arcanum: Of Steamworks and Magick Obscura* (Sierra Entertainment and Vivendi Universal, 2001). In this game—as in many video games—when the player first starts to play, he or she is invited to construct the character who will be the personification of the player. In *Arcanum* the player makes choices from many options. After choosing male or female gender, the player can choose Human, Elf, Gnome, Dwarf, Orc, Ogre, Half-Elf, Half-Orc, or Half-Ogre as his or her race. Each has its own unique qualities and strengths. The personal history or family stories the player chooses can positively affect a person in terms of qualities such as wealth, personality, hardships, and goodness. Players also can choose enhancements such as extra strengths, social skills, intelligences, or physical abilities.

In addition to the identity choices players make, Gee explained that three types of identities converge for video game players.

1. Real-world identity: The identity of the person playing a video game.

2. Virtual identity: The identity the player creates within the game.
3. Projective identity: The identity of the character as a projection of the player's values and desires in the game.

As Carly explained, when you play video games, "you feel like you're being pulled into the game." When I asked her what makes a "bad" video game, she responded, "You just feel like you're watching TV or something like that, and it's like some really boring TV show." With a good game, Carly's identity merges with the identities of the characters in the game. In all of Carly's games she chooses to be female, and when given a choice she selects long blonde hair as a physical characteristic.

Consider a child's first reading of the book *Where's Spot?* (Hill, 1980). In one sense, as the child turns the pages and opens the flaps, the child is a reader engaging with a book. In another sense the child is the mother dog looking for her puppy. However, the child's projective identity is not only the character or the reader; it is a projection of self onto the character. Children are consistently engaged with this book both physically and affectively. It is not unusual for children to squeal with delight when the flap is opened, revealing the puppy Spot. Those children have projected themselves on the character of the mother dog who has found her puppy.

Reality and self merge as affective reading carries children into texts. When children come to school, we insist that they all become functional and, we hope, accomplished readers. For most children this is an easy transition. They want to learn to read, and the process goes smoothly and easily.

For other children the challenge is immense. Being a reader does not always fit neatly with the identities that children bring to school. Devon (a pseudonym) was an African American 6-year-old who planned to go to college to be a "superhero." Devon's mother reported that in kindergarten, "He hated going to school. He hated everything to do with his books." In particular, writing became a problem; "He totally wouldn't even touch [writing] any more. As soon as the teacher would bring out his journal, he would cry."

During the first five minutes of his first reading lesson, Devon announced that he was bored and

asked to go back to class. It was immediately evident that strategic measures would need to be taken to help Devon become a reader. The next day, Devon was invited to write about his beloved superheroes and the characters from his video games. (See Figure 1.)

The books I asked Devon to read were carefully selected to appeal to his interests. Connections were made to the things he valued. The letter *G* was found in the word *Yu-Gi-Oh*—the name of a popular trading card game and television show. Reading fluently was related to rapping. As Gee (2003) explained, “The child must see and make connections between this new identity and the other identities he or she has already formed” (p. 51).

Twenty weeks later, Devon was reading chapter books. He read and wrote texts on a variety of topics. Devon’s mother recently wrote me a note indicating that Devon no longer wanted to go to college to become a superhero. He told her that he was now planning to become a reading teacher “to help other children learn to read.” Devon has adopted a new identity, but I am not sure that this would have happened without an awareness and a responsiveness to the identity that Devon brought to that first lesson. Devon’s initial goal of being a superhero left him questioning the relevance of reading for his future, and his struggles in kindergarten left him unsure of his ability to learn to read. As Gee (2003) explained, when a child comes to school with a real-world identity that has been damaged, “then this identity needs to be repaired before any active, critical learning can occur” (p. 61).

General understandings about how learning occurs

The next set of learning principles focuses on how learning occurs and what actions support learning. These principles reinforce the social nature of learning and the importance of learning within meaningful contexts. In addition, they reference the strategic problem solving that is used by successful gamers and successful readers.

FIGURE 1
Devon's early writing



Practice principle

Learners get lots and lots of practice in a context where the practice is not boring (i.e., in a virtual world that is compelling to learners on their own terms where the learners experience ongoing success). They spend lots of time on task. (Gee, 2003, p. 208)

As Gee (2003) explained,

Good video games involve the player in a compelling world of action and interaction, a world to which the learner has made an identity commitment in the sense of engaging in the sort of play with identities we have discussed. Thanks to this fact, the player practices a myriad of skills, over and over again, relevant to playing the game, often without realizing that he or she is engaging in such extended practice sessions. (p. 68)

The importance of reading large amounts of text when learning to read is no secret to reading professionals. We know that the more children read the better they get at reading. Clay’s study of 100 Auckland children found that children who read more made better progress (see Table 1). As Clay (1993) explained, extensive reading provides a child with “scope for practicing the orchestration of all the complex range of behaviours he must use” (p. 36). Extensive reading also develops “the tacit

TABLE 1
Words read per week for high-progress
and low-progress children

Progress group	Words read per week	Yearly estimate
High	3,570	20,000
High/middle	2,601	15,000
Low/middle	1,680	10,000
Low	757	5,000

Note. Adapted from Clay, 1991, p. 209.

knowledge that letters are more likely to occur in certain sequences in English” (p. 44).

Gee’s (2003) claims about video games raise issues beyond the amount of text read. Gee argued that video games engage children in a “compelling world of action and interaction” (p. 68). It is this engagement that enables children to spend hours focused on the game, practicing the same skills over and over again. The skills are not being practiced because the child wants to be good at pushing buttons or master quick hand-eye coordination; the skills are being mastered because the child has made a personal commitment to participating in the world of the game. As my daughter reports about her Pokémon game, “It lets you do things you always wanted to do such as [you’re] able to be a Pokémon master and stuff like that. It’s really cool.” This description of total immersion in video games is an example of *flow* as described by Csikszentmihalyi (1997). Csikszentmihalyi described an optimal state of total immersion and concentration that occurs when people are completely involved in an ongoing task and suggested that flow experiences can contribute to learning.

I argue that this is precisely what good readers do. For those of us who enjoy reading, Carly’s description of living vicariously through a video game aptly describes how it feels to be immersed in a good book. Avid readers do not read to improve their ability to recognize sight words or to master phonics. People who read a lot do so because they are engaged in an activity that is not boring. They become engaged in virtual worlds that are compelling and interesting. Practicing of skills and abilities is secondary to the activity.

Ongoing learning principle

The distinction between learner and master is vague, since learners, thanks to the operation of the “regime of competence” principle, listed next, must, at higher and higher levels, undo their routinized mastery to adapt to new or changed conditions. There are cycles of new learning, automatization, undoing automatization, and new reorganized automatization. (Gee, 2003, p. 71)

In video games, players are allowed to practice skills until they become routine. However, if players continue to respond to stimuli in routinized ways, over time, some games will stop rewarding players for these established behaviors and require the player to reexamine routine strategies and try new techniques. This results in players acquiring new and higher-level skills. As Gee (2003) reported,

Automatization is good and necessary if one is to engage in fluent and masterful practice. However, it gets in the way of new learning if it does not change and adapt in the face of novel conditions and opportunities to learn, which requires the learner to bring back to conscious awareness skills that have become unconscious and taken for granted and to think about these skills and how they relate to specific sorts of problems. (p. 70)

Clay (2005b) described routinized skills as “strong skills which block learning” (p. 167). Clay (1993) used the example of responses to a particular stimuli that become “overlearned and fluent” and are difficult to unlearn (p. 54). When faced with a difficulty in text, the child may continue to keep trying the same strategy over and over again. Consider the error that Tommy (a pseudonym) made four times while reading a story, shown in Figure 2.

During the months I worked with Tommy, he had been what we might call a “hard to teach” child. It took several months to help Tommy attend to the first letters of words when he read so when he saw a word that started with a *t*, he began to make the /t/ sound. But just as he had mastered this skill, more and more /th/ words began appearing in the books he read. Tommy had to revise one of his theories about reading (that *t* sounds like /t/) to accommodate this new information. He now needs to accommodate exceptions and understand that the sound a letter makes is not consistent.

The children from a recent research project revealed other routinized skills that we sometimes

need to address. When I asked my first-grade students about how they read tricky words, they consistently reported that they “sound them out.” Although we understand that for some words sounding out can be a helpful strategy, as teachers we realize that sounding out as a routinized strategy is inefficient and often ineffective. Consider the example of a child reading shown in Figure 3.

Children who automatically and consistently sound out words, particularly children who have routinely read texts that are phonetically controlled, need to develop additional strategies to deal with authentic texts and the unpredictability of written language.

In the example presented in Figure 4, the child has identified a part of an unknown word and has difficulty moving beyond what is known. Children need to use strategies flexibly and make allowances for novel situations that will lead to new learning. Children must very quickly analyze particular situations and select the most promising strategies from among their ever-increasing corpus of possible responses.

Probing principle

Learning is a cycle of probing the world (doing something); reflecting in and on this action and, on this basis, forming a hypothesis; reprobing the world to test this hypothesis; and then accepting or rethinking the hypothesis. (Gee, 2003, p. 107)

Gee (2003) proposed a four-step process through which game players, readers, and learners of any semiotic domain proceed.

1. The player must *probe* the virtual world (which involves looking around the current environment, clicking on something, or engaging in a certain action).
2. Based on reflection while probing and afterward, the player must form a *hypothesis* about what something (a text, object, artifact, event, or action) might mean in a usefully situated way.
3. The player *reprobes* the world with the hypothesis in mind seeing the effect he or she gets.
4. The player treats this effect as feedback from the world and accepts or *rethinks* his or

FIGURE 2
Repeatedly using the same strategy

/t/t/t/t/t/h/	A
there	T

// - The child pronounces the letter sound that is in the brackets.

A - The child appeals to the teacher for help.

T - The child is told the word by the teacher.

FIGURE 3
Using a routinized strategy

✓	/t/h/o/u/g/h/t/tu-how-gut/
She	thought
✓	/t/h/o/u/g/h/t/tu-how-gut/A
and	thought.

FIGURE 4
Difficulty in moving beyond what is known

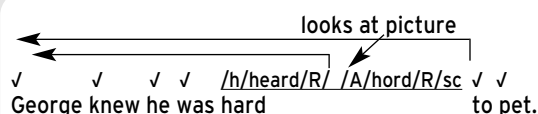
✓	✓	✓	is	is	is	land	A
She	saw	the	island				T

her original hypothesis. (p. 90, italics in original)

Gee (2003) explained that in a typical shooter game, “you can run around shooting at things a bit without engaging this process, but soon you will probably run out of ammo and health and die” (p. 90). Although children who read texts haphazardly and unstrategically do not generally die, they do tend to flounder in their ability to construct meaning from texts and often find themselves feeling frustrated and unrewarded for their efforts.

Gee’s (2003) four-step process can be easily rewritten so that it applies directly to reading. In this example, I merely changed the underlined words.

FIGURE 5
Evidence of a self-extending system



In this short example, Sarah:

attempted the sound /h/,
attempted the word *heard*,
reread the sentence,
looked at picture,
appealed to teacher,
attempted the word *hord*,
reread the sentence, and
self-corrected the error.

1. The reader must *probe* the text (which involves looking around the current page, checking something, or trying a certain action).
2. Based on reflection while probing and afterward, the player must form a *hypothesis* about what the text might mean in this situation.
3. The player *reprobes* the text with the hypothesis in mind evaluating whether or not it makes sense, sounds right, and looks right.
4. The player treats this effect as feedback from the text and accepts or *rethinks* his or her original hypothesis about the text. (adapted from p. 90)

Gee (2003) explained that this four-step process reveals why scripted direct instruction is problematic. “Children in these sorts of pedagogies are not learning to discover and test patterns for themselves.... They are learning to store discrete facts and elements of knowledge, not deeper patterns” (p. 94).

Clay (2005b) referred to this as developing a “self-extending system” (p. 103). Children with a self-extending system are those “whose reading and writing improve whenever they read and write” (Clay, 1993, p. 43). For these students “early strate-

gies are secure and habituated, freeing the reader to attend to other things” (Clay, 1993, p. 43) such as monitoring his or her reading, searching for additional cues, discovering new things while reading, cross-checking multiple sources of information, rereading text to confirm previous attempts, self-correcting, and solving new words while reading.

Sarah—a composite of several of my students—evidences a self-extending system during a reading about a porcupine that was difficult to pet because of his quills, as shown in Figure 5. In this short example, Sarah attempted the sound /h/, attempted the word *heard*, reread the sentence, looked at the picture, appealed to the teacher, attempted the word *hord*, reread the sentence, and self-corrected the error.

I chose this example because it reveals how Sarah probed the text, constructed a hypothesis, reprobated the text, and rethought her hypothesis, eventually arriving at the correct reading. In contrast to the “passive readers” described by Johnston and Winograd (1985), Sarah is an active reader who makes multiple attempts to solve an unknown word. This aggressiveness with text encourages an understanding of reading as a process that is enabled by active problem solving rather than intrinsic ability or luck.

Implications for teaching

The following learning principles focus on the role of the teacher and how teachers can organize learning experiences to support learning. These learning principles reflect sociocultural understandings related to the social nature of teaching, in particular the importance of interactions with more knowledgeable others and the importance of past experiences for current learning.

The next two principles are complementary and will be discussed together.

Subset principle and Incremental principle

Learning even at its start takes place in a (simplified) subset of the real domain. (Gee, 2003, p. 137)

Learning situations are ordered in the early stages so that earlier cases lead to generalizations that are fruitful for later cases. When learners face more complex cases later, the learning space (the number and types

of guesses the learner can make) is constrained by the sorts of fruitful patterns or generalizations the learner has found earlier. (Gee, 2003, p. 137)

Together, these principles explain how children move from working within simplified contexts toward applying what they have learned in these simplified contexts to more complicated learning situations. When a child first begins using a new video game the game often provides a training module in which basic moves and strategies are learned. Carly explained that, “Sometimes they’ll have little tiny instructions within the games, you just have to look around [on the screen].” As Gee (2003) explained, the first training episode of a good video game

does not tell the player everything he or she needs to know and do in order to play the rest of the game. All the episodes do is give the player enough information and skill to play and learn from subsequent episodes. (p. 120)

In teaching reading, the teacher does not sit a novice reader down and present an extended lecture on reading. In the first few lessons with a child, we address a couple of key concepts. Rather than teaching all the words and letters, punctuation, and vowel patterns on a page, with early readers we may attend to just one concept, perhaps the one-to-one match between written and spoken words. We know that after one-to-one match is established the child will be able to attend to the other aspects of print.

The gradient of book difficulty supports this sort of careful teaching. Early texts offer the students perhaps one line of words per page. The structure of the texts is often patterned, relieving children of the necessity to attend to every word and letter as they read. These simplified texts provide children with a “subset of the real domain” (Gee, 2003, p. 137) in which basic competencies can be developed and explored. Just as well-designed video games remain compelling and interesting even at introductory levels, superbly written predictable books are compelling and engaging to novice readers. Young readers must view these books as interesting and engaging so that they will practice and perfect strategies that are essential at both these early levels and at later higher levels of text difficulty.

Gee (2003) raised one important caveat. He explained that the issue is not merely starting children with easy cases, or easy texts: “The issue is starting them with cases that are basic or fundamental in the sense that they lead the learner to discover and practice what are, in fact, fruitful patterns and generalizations” (p. 134). For example, decodable texts may be easy for many children to decode; however, do books that present text with extraordinarily high numbers of decodable words truly help children to learn and understand the reading process? What about books that emphasize learning words by sight? Do they help children develop the range of strategies that are necessary for accomplished reading?

Explicit information on-demand and just-in-time principle

The learner is given explicit information both on-demand and just-in-time, when the learner needs it or just at the point where the information can best be understood and used in practice. (Gee, 2003, p. 138)

Carly described how she learns what she needs in order to play games. She talked about her Pokémon game:

[with] Professor Birch, there’s a bookshelf and then it will show you all the things you can do and sometimes you can go into a school where people are learning and on the chalkboard it shows you different moves. It tells you what “poison,” “paralyze,” “sleep,” or “burn” can do to your Pokémon.

As Gee (2003) explained, “In essence a game manual has been spread throughout the early episodes of the game, giving information when it can be best understood and practiced through situated experience” (p. 133).

The connections to reading here are clear. Clay (2005a) entreated us to attend to children’s abilities in order to provide them with the “clearest, easiest, most memorable examples” (p. 23) that are tailored to draw the child’s attention to particular features of text-explicit information on demand and just in time. Clay (1993) recommended a “superbly sequenced programme determined by the child’s performance” (p. 9). She encouraged teachers to stop teaching from their “preconceived ideas” (p. 13) and to support students by having each student use “the things he can do” (p. 14). Our job as teachers is

to “direct the child’s attention to things he overlooks” (p. 37).

All of these comments are grounded in contingent teaching and tailored to students’ strengths and weaknesses; they reflect Clay’s theory that children learn best when they are not overloaded with information and explanation. They learn best when what is offered is relevant and useful. Reading teachers provide this type of support all the time when they prompt children during reading. In this example the child is reading, and when she comes to the word *joking* she stops without attempting the word.

Teacher: (prompting) “What does it start with?”

Child: “j”

Teacher: “Can you say more of that?”

Child: “jo-k...joke”

Teacher: “Is the end of joke right?”

Child: “ing...joking”

Teacher: “Yes. You found two parts to that word, *jok* and *ing*.” (Clay, 1993, p. 49, italics in original)

In this example the teacher enters when the child needs help, with assistance that is explicit and just in time.

Video games provide insights on learning

It is interesting that what Gee’s work demonstrates is not new to the field of reading. According to sociocultural theory, learning to read occurs within particular contexts that involve particular people and particular expectations. We know that it is a social process that occurs through interaction with others and is grounded in historical precedents that affect the ways we teach and learn. Literacy learning involves learning multiple types of literacy practices that are differentially useful in various contexts, and literacy learning and literacy practices are not separate from people’s identities. Finally, literacy learning and literacy practices are ideological and situated within contexts that involve power. Perhaps it is these issues related to ideology and power that may make it easy for many literacy educators to dismiss the potential of video games to teach us about teaching. After all, we often assume that video games are merely toys

that waste children’s time and prevent them from participating in more productive activities, like reading. Many teachers argue that video games could not possibly contribute to our understandings about learning.

As teachers, we know that learning is enhanced when children are actively involved. We know the importance of a risk-free environment and the role identities play in learning. As teachers, we value opportunities for children to practice skills in meaningful and engaging contexts that are not boring. We recognize the importance of ongoing learning and strive to help children to build upon what they know to extend their abilities. We strive to interact with children at the edges of their abilities. We value the hypotheses that children construct as they learn and hope that these insights lead to understandings about reading that will be useful in various contexts. We strive to provide for children “explicit information on demand” that is provided “just in time.”

As Cambourne (2002) has argued, learning is natural and it occurs spontaneously outside of schools and classrooms. He suggested that we can discover how children learn by attending to the ways children learn naturally. If an understanding of learning is what we want and need, then video games can be our teachers. Video games are extremely successful in teaching children; they have lessons for us about teaching reading.

Although I maintain that the analogy between learning video games and learning to read is informative and helpful, playing video games and reading books are distinctly different processes and there are limits to the analogy. Video games are multimodal media in ways that books are not. They involve not only sight but sound and movement. In reading most books, the reader is left to construct images of what he or she reads, but video games tend to provide those images. In addition, it is not yet understood what roles physical movement, sound, and increased visual imagery may contribute to the propensity of these games to engage children’s attention.

What is helpful in Gee’s work is his presentation of possibilities. Good video games demonstrate that combining learning principles to support children as learners is possible and results in learning that is enjoyable and fulfilling. Given these insights, we must continue to aspire toward creating exemplary reading practices in our classrooms. Gee’s insights speak to these possibilities and con-

firm that these principles are effective and potentially useful for reading teachers.

What would a reading classroom based on these principles be like? Although it is teachers in schools who will, over time, construct the answers to this question for their own students, a few broad ideas can be inferred. Children would be reading authentic books that engaged them with stories and ideas. By reading interesting books, children would become better readers as they practiced skills and processes that they could continue to build upon as their reading improved. Children would participate in a risk-free environment with skilled teachers who could provide for children “explicit information” that was “just in time.” The teachers would not be overwhelmed with trivial administrative demands or unrealistic numbers of students. They would have the opportunity to consistently interact with children at the edges of their abilities. They would have time to talk with children about their reading, identify their hypotheses about reading and the texts that the children read, and help children to refine and extend these understandings. Finally, teachers would be able to provide all children with books and resources that built upon the identities and interests that children would bring; materials that suggested a vast range of issues, cultures, media resources, and ages would be available.

Teachers must have the time and resources to become knowledgeable about their students so that their students’ interests and experiences are reflected in the texts and experiences that occupy classrooms.

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References

Bakhtin, M.M. (1994). From M.M. Bakhtin, The dialogical imagination. In P. Morris (Ed.), *The Bakhtin reader*:

Selected writings of Bakhtin, Medvedev, Voloshinov (pp. 74-84). London: Edward Arnold.

Barton, D., & Hamilton, M. (1998). *Local literacies: Reading and writing in one community*. London: Routledge.

Barton, D., Hamilton, M., & Ivanič, R. (Eds.). (2000). *Situated literacies: Reading and writing in context*. London: Routledge.

Clay, M. (1991). *Becoming literate: The construction of inner control*. Portsmouth, NH: Heinemann.

Clay, M. (1993). *Reading Recovery: A guidebook for teachers in training*. Portsmouth, NH: Heinemann.

Clay, M. (2005a). *Literacy lessons designed for individuals: Part One, Why? When? And how?* Portsmouth, NH: Heinemann.

Clay, M. (2005b). *Literacy lessons designed for individuals: Part Two, Teaching procedures*. Portsmouth, NH: Heinemann.

Csikszentmihalyi, M. (1996). *Finding flow: The psychology of discovery and invention*. New York: HarperCollins.

Ferdman, B. (1990). Literacy and cultural identity. *Harvard Educational Review*, 60, 181-204.

Gee, J.P. (2001). Identity as an analytic lens for research in education. In W. Secada (Ed.), *Review of research in education* (Vol. 25, pp. 99-125). Washington, DC: American Educational Research Association.

Gee, J.P. (2003). *What video games have to teach us about learning and literacy*. New York: Palgrave Macmillan.

Gee, J.P. (2004, Winter). Good games, good teaching. *Campus Connections: For Alumni & Friends of the University of Wisconsin-Madison School of Education*, 24, 2-5.

Hull, G., & Schultz, K. (2002). *School's out: Bridging out of school literacies with classroom practices*. New York: Teachers College Press.

Johnston, P., & Winograd, P. (1985). Passive failure in reading. *Journal of Reading Behavior*, 17, 279-301.

Lyons, C. (2003). *Teaching struggling readers: How to use brain-based research to maximize learning*. Portsmouth, NH: Heinemann.

Smith, F. (2002). The conditions of learning: Is learning natural? *The Reading Teacher*, 55, 758-762.

Street, B. (1995). *Social literacies: Critical approaches to literacy in development, ethnography, and education*. London: Longman.

Literature cited

Hill, E. (1980). *Where's Spot?* New York: Penguin.

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